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IN THE CLAIMS:

Please **cancel claims** 2, 10, 11, 17, 23, 36-38, **and** 42-45 without prejudice or disclaimer; please **amend claims 1, 4, 5, 16, 18-21, 24, 26, 27, 28, and 29** as indicated below; and **add claims 46-57** as follows:

1. (*Currently amended*) An audio user-interfacing method in which items, <u>at least some of which are service labels,</u> are represented in an audio field by corresponding synthesized sound sources from where <u>item-related</u> sounds ~~related to the items~~ appear to emanate, the method comprising:

associating only some of the sound sources [[into]] <u>as members of</u> a collection ~~of which they are members~~; [[and]]

upon user command, <u>and within an audio environment formed by audibly present sound sources unrelated to said collection,</u> changing the collection in either direction between:

an un-collapsed state in which the member sound sources are individually audibly present in the audio field; <u>and</u>

a collapsed state in which the member sound sources are fully muted and a collection-representing sound source provides an audible presence for the collection ~~in the audio field~~; and

~~keeping sound sources that are un-related to said collection audibly present in the audio field independently of the~~

~~collection state~~ <u>selecting a service by selecting the sound source
representing the corresponding service label</u>.

2.   (*Cancelled*)

3.   (*Original*) A method according to claim **1**, wherein the
collection changes state, at least in one direction, automatically
upon detection of predetermined trigger conditions.

4.   (*Currently amended*) A method according to claim **1**, wherein
the collection-representing sound source remains <u>audibly</u> present in
the audio field when the collection is in its un-collapsed state.

5.   (*Currently amended*) A method according to claim **1**, wherein
the collection-representing sound source is <u>fully</u> muted when the
collection is in its un-collapsed state.

6.   (*Original*) A method according to claim **1**, wherein the
change between collection states, at least in one direction, is
accompanied by a corresponding sound suggestive of moving to the end
state of the current change.

7.   (*Original*) A method according to claim **1**, wherein the
change between collection states, at least in one direction, is
accompanied by moving the member sound sources through the audio
field between their normal locations and the location of the

collection-representing sound source, the direction of this movement being dependent on the end state of the current change.

8. (*Original*) A method according to claim **1**, wherein when the collection is in its collapsed state, the collection-representing sound source provides an audio label for the collection, this label being repeated at intervals.

9. (*Original*) A method according to claim **1**, wherein when the collection is in its collapsed state, the collection-representing sound source outputs at least extracts of the sounds associated with the collection member sound sources when un-collapsed.

10. (*Cancelled*)

11. (*Cancelled*)

12. (*Previously presented*) A method according to claim **1**, wherein the collection is associated with a respective audio-field reference relative to which the member sound sources of the collection are positioned, other sound sources in the audio field being positioned relative to one or more further audio-field references, the audio-field references being independently movable relative to a presentation reference determined by a mounting configuration of audio output devices used to synthesise said sound sources, with movement of a said audio-field reference relative to

the presentation reference resulting in corresponding movement of the associated sound sources.

13. (*Original*) A method according to claim **12**, wherein the audio field reference associated with the collection is world-stabilised and the member sound sources represent augmented reality services, each member sound source being positioned relative to the audio field reference of the collection such that for a user located in a notional reference position, the sound source lies in the same direction as a corresponding real-world location associated with the augmented reality service represented by the sound source.

14. (*Original*) A method according to claim **1**, wherein the audio field is rendered by apparatus including audio output devices according to sound-source data indicative of the rendering position and audibility of the each sound source in the audio field, the muting and un-muting of said member sound sources to collapse and un-collapse the collection being effected by changing the sound-source data for these sound sources to appropriately set the audibility of the sources.

15. (*Previously presented*) A method according to claim **1**, wherein upon un-collapsing of the collection, at least some of the other sound sources in the audio field have their positions in the audio field adjusted.

16. (*Currently amended*) Apparatus for providing an audio user interface in which items, at least some of which are audio labels for services, are represented in an audio field by corresponding synthesized sound sources from where sounds related to the items appear to emanate, the apparatus comprising:

a data store storage means for storing data on the sound sources, this data including audibility data for controlling the audibility of the sources in the audio field, and collection data for associating only some of the sound sources into a collection of which those sound sources are members and for further associating with the collection a collection-representing sound source;

a rendering-position determining means arrangement for determining, for each of said sound sources, a respective associated rendering position at which the sound source is to be synthesized to sound in the audio field;

a collection-control means arrangement for changing, upon user command, the collection in either direction between un-collapsed and collapsed states and for correspondingly setting the audibility data of the collection-related sound sources such that:

in the un-collapsed state of the collection, the member sound sources are audible at their respective rendering positions; and

in the collapsed state of the collection, the member sound sources are fully muted and the collection-representing sound source provides an audible presence for the collection in the audio field; [[and]]

a rendering ~~means~~ subsystem, including audio output devices, for generating an audio field in which said sound sources are synthesized at their associated rendering positions and with the audibility of the collection-related sound sources set by said collection-control ~~means~~ arrangement, the rendering ~~means~~ subsystem being arranged to audibly present in said audio field, independently of the current state of said collection, those sound sources that are unrelated to said collection; and

a selection arrangement for enabling a user to select a service by selecting the corresponding audio-label sound source.

17. (*Cancelled*)

18. (*Currently amended*) Apparatus according to claim **16**, wherein the collection-control ~~means~~ arrangement is arranged to automatically change the state of the collection, at least in one direction, upon detection of predetermined trigger conditions.

19. (*Currently amended*) Apparatus according to claim **16**, wherein the collection-control ~~means~~ arrangement is arranged to set the audibility data of the collection-representing sound source such

that this source remains present in the audio field when the collection is in its un-collapsed state.

20. (*Currently amended*) Apparatus according to claim **16**, wherein the collection-control ~~means~~ <u>arrangement</u> is arranged to set the audibility data of the collection-representing sound source such that this source is muted in the audio field when the collection is in its un-collapsed state.

21. (*Currently amended*) Apparatus according to claim **16**, wherein the collection-control ~~means~~ <u>arrangement</u> is arranged in changing between collection states, at least in one direction, to modify the rendering positions of the member sound sources such they move through the audio field between their normal positions and the positions of the collection-representing sound source, the direction of this movement being dependent on the end state of the current change.

22. (*Original*) Apparatus according to claim **16**, wherein when the collection is in its collapsed state, the collection-representing sound source provides an audio label for the collection, this label being repeated at intervals.

23. (*Cancelled*)

24. (*Currently amended*) Apparatus according to claim **16**, further comprising a̲ notification ~~means~~ <u>arrangement</u> arranged when the collection is in its collapsed state, to provide via the collection-representing sound source, audio notifications of events related to the items represented by the member sound sources.

25. (*Cancelled*)

26. (*Currently amended*) Apparatus according to claim **16**, wherein the rendering-position determining ~~means~~ <u>arrangement</u> comprises:

~~means~~ <u>a setting arrangement</u> for setting the location of each said collection member sound source relative to an audio-field reference;

~~means~~ <u>a control arrangement</u> for controlling an offset between the audio field reference and a presentation reference, the presentation reference being determined by a mounting configuration of the audio output devices; and

~~means~~ <u>a deriving arrangement</u> for deriving the rendering position of each sound source based on the location of the sound source in the audio field and said offset.

27. (*Currently amended*) Apparatus according to claim **26**, wherein the collection member sound sources represent augmented reality services that have associated real-world locations, the

rendering-position determining ~~means~~ arrangement being arranged to world-stabilise the audio field reference associated with the collection and to position each member sound source relative to the audio field reference such that for a user located in a notional reference position, the sound source lies in the same direction as the corresponding said real-world location.

28. (*Currently amended*) Apparatus according to claim 26, wherein the said ~~means~~ setting arrangement for setting an offset between the audio field reference and a presentation reference, comprises user input ~~means~~ arrangement for enabling a user to change said offset, and a stabilisation ~~means~~ arrangement for varying the said offset such as to stabilise the audio field reference relative to one of:

        a user's head;

        a user's body;

        a vehicle mounting the apparatus;

        the world.

29. (*Currently amended*) Apparatus for providing an audio user interface in which items are represented in an audio field by corresponding synthesized sound sources from where sounds related to the items appear to emanate, the apparatus comprising:

a data store for storing data on the sound sources, this data including audibility data for controlling the audibility of the sources in the audio field, and collection data for associating only some of the sound sources into a collection of which those sound sources are members and for further associating with the collection a collection-representing sound source;

a rendering-position determining arrangement arranged to determine, for each of said sound sources, a respective associated rendering position at which the sound source is to be synthesized to sound in the audio field;

a collection-control arrangement arranged to change, upon user command, the collection in either direction between un-collapsed and collapsed states and to correspondingly set the audibility data of the collection-related sound sources such that:

in the un-collapsed state of the collection, the member sound sources are audible at their respective rendering positions; and

in the collapsed state of the collection, the member sound sources are fully muted and the collection-representing sound source provides an audible presence for the collection in the audio field; [[and]]

a rendering subsystem, including audio output devices, arranged to generate an audio field in which said sound sources are

synthesized at their associated rendering positions with the audibility of the collection-related sound sources set by said collection-control arrangement, the rendering ~~arrangement~~ subsystem being arranged to audibly present in said audio field, independently of the current state of said collection, any said sound sources that are unrelated to said collection; and

a notification arrangement arranged when the collection is in its collapsed state to provide via the collection-representing sound source, audio notifications of events related to the items represented by the member sound sources.

30. (*Original*) Apparatus according to claim **29**, wherein the collection-control arrangement includes a user input arrangement for changing the collection state, at least in one direction.

31. (*Previously presented*) Apparatus according to claim **29**, wherein the collection-control arrangement is arranged to automatically change the state of the collection, at least in one direction, upon detection of predetermined trigger conditions.

32. (*Previously presented*) Apparatus according to claim **29**, wherein the collection-control arrangement is arranged to set the audibility data of the collection-representing sound source such that this source remains present in the audio field when the collection is in its un-collapsed state.

33. (*Previously presented*) Apparatus according to claim **29**, wherein the collection-control arrangement is arranged to set the audibility data of the collection-representing sound source such that this source is muted in the audio field when the collection is in its un-collapsed state.

34. (*Previously presented*) Apparatus according to claim **29**, wherein the collection-control arrangement is arranged in changing between collection states, at least in one direction, to modify the rendering positions of the member sound sources such they move through the audio field between their normal positions and the positions of the collection-representing sound source, the direction of this movement being dependent on the end state of the current change.

35. (*Original*) Apparatus according to claim **29**, wherein when the collection is in its collapsed state, the collection-representing sound source provides an audio label for the collection, this label being repeated at intervals.

36. (*Cancelled*)

37. (*Cancelled*)

38. (*Cancelled*)

39. (*Previously presented*) Apparatus according to claim **29**, wherein the rendering-position determining arrangement comprises:

a setting arrangement for setting the location of each said collection member sound source relative to an audio-field reference;

a control arrangement for controlling an offset between the audio field reference and a presentation reference, the presentation reference being determined by a mounting configuration of the audio output devices; and

a deriving arrangement arranged to derive the rendering position of each sound source based on the location of the sound source in the audio field and said offset.

40. (*Previously presented*) Apparatus according to claim **39**, wherein the collection member sound sources represent augmented reality services that have associated real-world locations, the rendering-position determining arrangement being arranged to world-stabilise the audio field reference associated with the collection and to position each member sound source relative to the audio field reference such that for a user located in a notional reference position, the sound source lies in the same direction as the corresponding said real-world location.

41. (*Previously presented*) Apparatus according to claim **39**, wherein the said setting arrangement comprises a user input

arrangement arranged to enable a user to change said offset, and a stabilisation arrangement arranged to vary the said offset such as to stabilise the audio field reference relative to one of:

  a user's head;

  a user's body;

  a vehicle mounting the apparatus;

  the world.

  42. *(Cancelled)*

  43. *(Cancelled)*

  44. *(Cancelled)*

  45. *(Cancelled)*

  46. *(New)* An audio user-interfacing method in which items are represented in an audio field by corresponding synthesized sound sources from where sounds related to the items appear to emanate, the method comprising:

  associating some only of the sound sources into a collection of which they are members;

  upon user command, and within an audio environment formed by audibly-present sound sources unrelated to said collection, changing the collection in either direction between:

an un-collapsed state in which the member sound sources are individually audibly present; and

a collapsed state in which the member sound sources are fully muted and a collection-representing sound source provides an audible presence for the collection; and

using the collection-representing sound source, when the collection is in its collapsed state, to provide audio notifications of events related to the items represented by the member sound sources.

47. (*New*) A method according to claim **46,** wherein the collection changes state, at least in one direction, automatically upon detection of predetermined trigger conditions.

48. (*New*) A method according to claim **46,** wherein the collection-representing sound source remains audibly present in the audio field when the collection is in its un-collapsed state.

49. (*New*) A method according to claim **46,** wherein the collection-representing sound source is fully muted when the collection is in its un-collapsed state.

50. (*New*) A method according to claim **46,** wherein the change between collection states, at least in one direction, is accompanied

by a corresponding sound suggestive of moving to the end state of the current change.

51. (*New*) A method according to claim **46,** wherein the change between collection states, at least in one direction, is accompanied by moving the member sound sources through the audio field between their normal locations and the location of the collection-representing sound source, the direction of this movement being dependent on the end state of the current change.

52. (*New*) A method according to claim **46,** wherein when the collection is in its collapsed state, the collection-representing sound source provides an audio label for the collection, this label being repeated at intervals.

53. (*New*) A method according to claim **46,** wherein when the collection is in its collapsed state, the collection-representing sound source outputs at least extracts of the sounds associated with the collection member sound sources when un-collapsed.

54. (*New*) A method according to claim **46,** wherein the collection is associated with a respective audio-field reference relative to which the member sound sources of the collection are positioned, other sound sources in the audio field being positioned relative to one or more further audio-field references, the audio-

field references being independently movable relative to a presentation reference determined by a mounting configuration of audio output devices used to synthesise said sound sources, with movement of a said audio-field reference relative to the presentation reference resulting in corresponding movement of the associated sound sources.

55. (*New*) A method according to claim 54, wherein the audio field reference associated with the collection is world-stabilised and the member sound sources represent augmented reality services, each member sound source being positioned relative to the audio field reference of the collection such that for a user located in a notional reference position, the sound source lies in the same direction as a corresponding real-world location associated with the augmented reality service represented by the sound source.

56. (*New*) A method according to claim 46, wherein the audio field is rendered by apparatus including audio output devices according to sound-source data indicative of the rendering position and audibility of the each sound source in the audio field, the muting and un-muting of said member sound sources to collapse and un-collapse the collection being effected by changing the sound-source data for these sound sources to appropriately set the audibility of the sources.

57. (*New*) A method according to claim **46**, wherein   upon un-collapsing of the collection, at least some of the other sound sources in the audio field have their positions in the audio field adjusted.